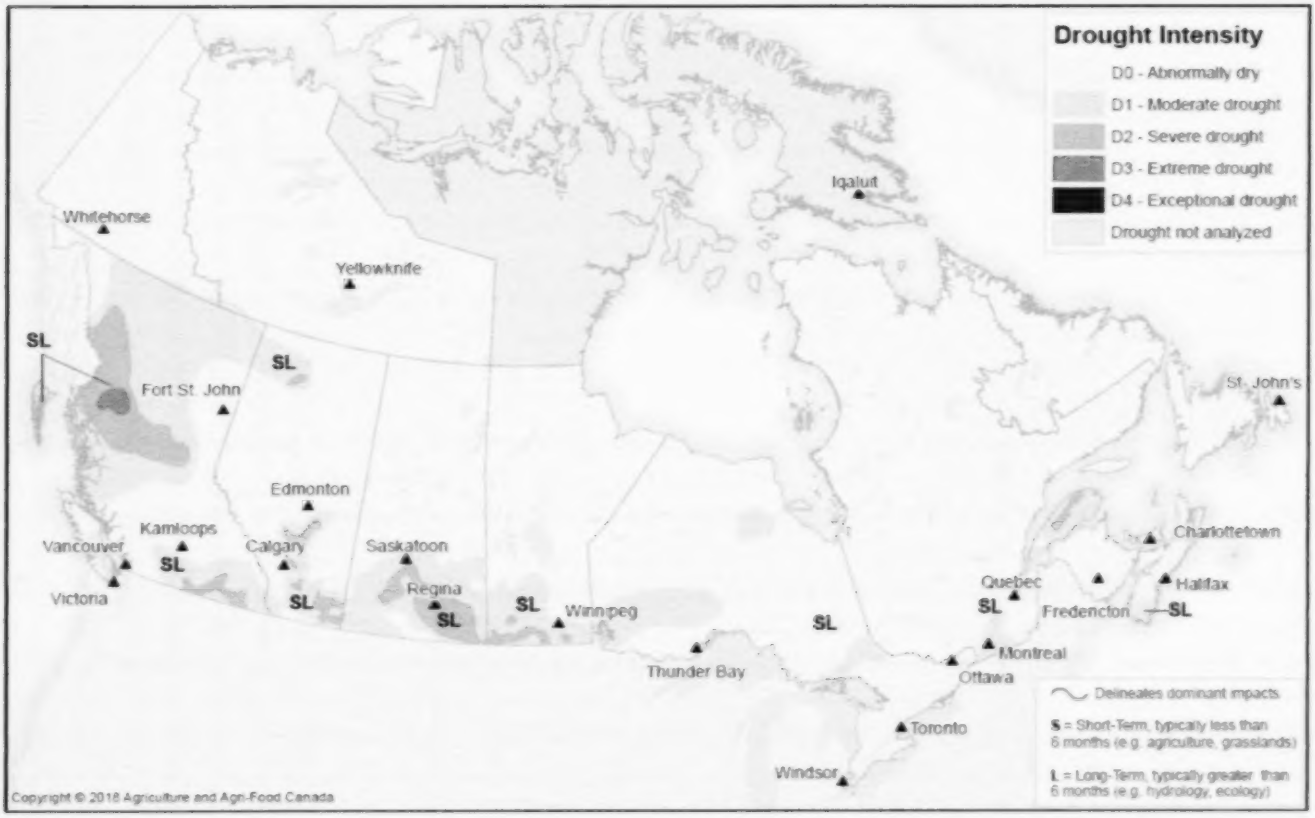
# Canadian Drought Monitor

## Conditions as of September 30th, 2018




Drought conditions in Canada remained generally stable throughout September, with small improvements in some regions of western Canada and mild deterioration of conditions in eastern Canada. The first couple weeks of September were a continuation of conditions seen throughout August – dry, warm temperatures in the west and frequent precipitation through central Canada. However conditions took a drastic turn mid-month with falling temperatures and some precipitation in western drought regions. Recent precipitation, including snow in many areas, and record-low temperatures improved soil moisture at the surface. However for areas that have been under drought much of the summer, recent precipitation has not significantly improved the situation. Conditions in Central Canada remained relatively unchanged throughout the month, and continued precipitation deficits led to persisting drought in southern Quebec. Atlantic Canada experienced an abnormally dry September, and drought persisted in southern Nova Scotia.

## Pacific Region (BC)

Dry conditions persisted in northern British Columbia throughout September, but the southern regions of the province benefitted from high amounts of precipitation. Much of Vancouver Island and the coast received precipitation greater than the 95$^{th}$ percentile or greater than 200 per cent of average for the month. This precipitation helped alleviate drought conditions and recharge soil moisture and streamflow. A small Moderate Drought (D1) pocket persisted near Victoria and the southeast shore of Vancouver Island due to continued precipitation and groundwater deficits. The southern Interior region also benefitted from above average precipitation, especially in the Okanagan area, and the Severe Drought (D2) pocket along the US border shrank towards the southeast. A large D1 pocket and two D2 pockets persisted in the north, where precipitation was below normal throughout September. By the end of the month, wildfire conditions had improved since the previous month, and remained confined to the northern half of the province. Overall, long-term deficits have amplified in much of the northern half of the province with portions of the northwest having received less than 60 per cent of average precipitation.

## Prairie Region (AB, SK, MB)

September brought much-needed moisture to the Prairie region, replenishing topsoil moisture across much of the regions following months of Moderate (D1) to Severe (D2) drought conditions. Central Alberta and southern Saskatchewan experienced cold temperatures and substantial precipitation in the form of rain and snow, halting or significantly stalling agricultural operations. Northern and southeastern Alberta missed this precipitation, and drought worsened in these regions. Extreme short and long term precipitation deficits in the northwest led to the development of a D2 pocket east of High Level. Several D2 pockets persisted in the southern half of the province where precipitation throughout September was inadequate. The region surrounding Medicine Hat experienced a precipitation deficit greater than 100mm below normal since the start of the growing season; thus, an Extreme Drought (D3) pocket endured. Conditions in southeastern Saskatchewan deteriorated throughout the month, and the D2 pocket in the region expanded south towards the Manitoba border. Much of southern Manitoba benefitted from normal to above normal precipitation throughout September, especially in the Interlake region where D2 conditions were alleviated. D2 persisted along the southern Manitoba border, where precipitation was inadequate to replenish the substantial deficit throughout the growing season. The late-season moisture improvements across the region will have minimal benefits for the current growing season, but may help improve pastures that experienced drought stress for the next season.

## Central Region (ON, QC)

Wet conditions in Ontario led to the continued improvement of soil moisture and streamflow across most of the region. Despite moderately high precipitation throughout the month,

Moderate Drought (D1) persisted along the southeastern Manitoba border due to seasonal deficits. The Dryden area that was previously experiencing Severe Drought (D2) improved as a result of more than 100mm of precipitation accumulated throughout September. Abnormally Dry (D0) conditions persisted in eastern Ontario in the regions where precipitation was inadequate. Across the province, crop yields were extremely variable depending on soil moisture conditions at the time of planting and early season rainfall. Drought persisted in eastern Quebec, where precipitation throughout September was normal to below normal, and not adequate to replenish long-term deficits. Long-term drought indices suggested that dryness in the Bas-Saint-Laurent and Saguenay-Lac-Saint-Jean regions of Quebec have not fully recovered, and much of the area remained in D0 and D1 conditions. Prolonged precipitation deficits led to persisting D2 conditions along the Gulf of St. Lawrence.

## Atlantic Region (NS, NB, PE, NL)

Most of Atlantic Canada experienced well below normal precipitation throughout September. A large Abnormally Dry (D0) pocket developed, encompassing New Brunswick, Nova Scotia, and Prince Edward Island. Surplus soil moisture throughout the growing season prevented any possible agricultural impacts, and the dry weather was welcomed for harvest. The southern-most agricultural regions of Nova Scotia continued to experience rainfall deficits; thus, a Moderate Drought (D1) pocket persisted.

## Northern Region (YT, NT)

Dryness concerns in Northern Canada remained relatively unchanged throughout September. Along the southern Yukon and Northwest Territories' borders, continued precipitation deficits resulted in persisting Abnormally Dry (D0) and Moderate Drought (D1) pockets extending up from the neighbouring provinces. Satellite-derived data indicated that the northern areas of the region experienced above average precipitation that alleviated all previous dryness concerns.

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